

Acting Director of NIH Fogarty International Center Addresses Global Neuroscience Issues



Sharon Hryn timer

Sharon Hryn timer is acting director of the Fogarty International Center (FIC).

NQ: The Fogarty International Center has been described as the diplomatic arm of the National Institutes of Health (NIH). What do you believe are the major global health challenges of this century? How can Fogarty help facilitate collaboration between the NIH institutes and global organizations to address these challenges?

Hryn timer: Fogarty does two things for the NIH. On the diplomatic side, we are the State Department, if you will, for the NIH. We know what is developing across the NIH in terms of international activities, and we try to convey that through the Department of Health and Human Services and through the State Department to intergovernmental bodies, international organizations like the World Health Organization, and to the NIH counterparts abroad. We serve a coordination function, and one with real value added. We also support a set of research and training programs that allow us and our NIH partner agencies to address global health issues. Through our diplomatic efforts and through our capacity building and research efforts, we are able to move the global health agenda forward.

In terms of the major global health challenges, HIV/AIDS is at the top of the list, given the growing numbers of HIV-infected individuals around the world, including in the United States. Emerging infectious disease is also a great concern for us, such as the new viruses and bacteria that we see emerging every year, including West Nile virus, SARS, and the ever-changing influenza viruses.

Mental illness is another area of increasing concern. We held an outreach event on Capitol Hill recently to discuss the growing challenges facing us and other nations from mental illness (see story, p. 8). The leadership of both the National Institute on Drug Abuse (NIDA) and the National Institute of Mental Health (NIMH), joined in this effort to raise awareness of the global burdens of addiction and other critical challenges to individuals, families, and societies. Drug use, including alcohol abuse and alcoholism, and depression all pose immediate and growing threats. If we can do a better job now in terms of research and training of mental health professionals and scientists around the world, we will be able to stem some of the impact of the mental health burden that we know is growing.

NQ: What role does the Fogarty International Center play in neuroscience research?

Hryn timer: A few years ago, we recognized that mental illness and disorders in cognitive development would play an increasing role in the global burden of disease, and that there were opportunities to advance key areas of science. We developed several

programs that allow us to address some neuroscience challenges. We did this in consultation with leading neuroscientists around the world, including Torsten Wiesel, and, of course, with our sister NIH agencies, including the National Institute of Neurological Disorders and Stroke, NIDA, NIMH, and the National Institute on Child Health and Human Development. We now support a research exploratory grant program, seed grants to develop preliminary data on "Brain Disorders in the Developing World." This program allows U.S. scientists to work in partnership with scientists around the world on critical neuroscience challenges, including epilepsy, autism, central nervous system impacts of HIV and AIDS, malaria-related seizures, and factors in disorders of cognition in development and aging.

We also support another program that looks at mental health services research. What we know in our country is that delivery of mental health services may not always be up to par. If you look in the developing world, you see a similar situation, only with weakened infrastructures. We began to link our research programs and others from across the NIH, including those of NIMH in particular, to consider how we could build programs that would reduce the burden of mental illness through research training programs. Today, we support a collaborative, multidisciplinary training program to build clinical, operational, and health services research expertise in the mental health and drug abuse areas. Some of our investigators are working in China and India, just as examples, to help prepare a cadre of professionals who can develop effective programs in suicide prevention or managing alcoholism.

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NQ: What new initiatives are planned for neuroscience research?

Hryn timer: We expect that our "Brain Disorders in the Developing World" program will evolve from a seed grant program to a full-fledged RO1 program in 2006. This program, plus the companion program related to mental health services research and training, will allow us to network brain researchers and mental health professionals around the world in new and exciting ways, which include, but are not limited to, addressing issues related to the co-occurrence of psychiatric disorders and

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alcohol use. According to the 2004 World Health Organization Report, alcohol is one of the largest menaces to health in the world's developing countries, followed by high blood pressure and tobacco. Another area of importance is the neuroscience of alcohol and psychoactive substance use and dependence.

Two additional programs, now ongoing, will continue to be key for us as we support the neurosciences. One is the "Stigma and Global Health" Program, launched in 2003 to look at stigma, its causes and consequences, and to develop new knowledge so that we can combat it. We understand very keenly that stigma prevents people from seeking care and signing up for clinical trials, and we want to know how and why certain attitudes contribute to stigma in societies. A number of the research awards that we made, again, in partnership with more than a dozen NIH institutes, focused on how stigma relates to drug abuse, epilepsy, or mental illnesses such as psychosis. We are very excited about what we are going to uncover from the stigma program as it relates to the neurosciences.

Second, our program on tobacco research and training, developed and supported with NIDA and the National Cancer Institute (NCI), is today the largest of its kind. Given the impact that tobacco will have on global health, particularly in countries with weak health-care infrastructures, this program will continue to be important.

NQ: What do you believe are the major challenges for neuroscience internationally?

Hrynkow: I think the biggest challenge is recognizing that there is a problem in mental health. In many countries, mental illness is underdiagnosed, underrecognized, and undertreated. Recognizing the burden of morbidity and mortality related to mental illness is the number one challenge, and part of what we strive for is raising awareness of mental illness as a global burden.

There is a shortage, too, of qualified researchers around the world to tackle some of these issues, so our second challenge is to build the next generation of researchers, both basic scientists and clinical researchers, who are able to participate in neuroscience research. This is as true in the developed world as it is in the developing world.

NQ: How can research on global health issues be useful in our own country? What can we gain that we can take back and implement in our own society?

Hrynkow: The United States is a country of many populations and communities. We are genetically very diverse. We are sociologically very diverse. As we work in partnership with colleagues internationally to understand genetics or to develop socially and culturally appropriate behavioral interventions that work, we are moving science forward and building relationships. We know too that low-tech interventions developed abroad, like oral rehydration therapy, can have an incredible impact not only in the poor country in which it was developed (to treat diarrhea) but also around the world. We are looking for low-tech advances that would improve health abroad and that could be applicable back home. Let me make one final remark on what we gain from working abroad, and this goes beyond the science. As Americans working with partners abroad, we gain understand-

ing of other cultures and other people, and we share our own perspectives with them. Mutual understanding and relationships are a critical component of our work internationally.

NQ: How does the war on terrorism affect the global health initiatives of Fogarty?

Hrynkow: The backdrop upon which all NIH international programs work, and the FIC programs in particular, has become increasingly complex over the past few years. Visa and related issues have complicated efforts for scientists to travel, to take new positions, or to attend scientific meetings. These are the new realities. At the same time, our resolve as an agency has only been strengthened: International cooperation is perhaps more important than ever. We want to be sure that scientists from every nation have the opportunity to participate in the scientific enterprise, to the greatest extent possible. This includes those in Iraq and other Middle Eastern nations. To the extent that we can build bridges of understanding and trust, while working cooperatively to move a shared scientific agenda forward, we will be doing well.

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NQ: How can the Fogarty work with organizations like the Society for Neuroscience? Can you address the opportunities and challenges for neuroscience?

Hrynkow: The Society for Neuroscience is a huge network of experts, not only in the United States, but around the world. If we can map our network of trainees and grantees over the Society's networks, then I believe we can gain leverage and benefit from both. One concrete way that we are hoping to move forward involves having the Fogarty neuroscience trainees attend the annual meeting of the Society for Neuroscience. Getting these individuals more connected to professional societies like SfN is incredibly powerful and will provide scientists in developing countries with a fabulous range of opportunities and contacts beyond what they normally would get through the Fogarty infrastructure. To look at this from the other side, SfN can also be valuable to us as we work to identify needs and opportunities abroad in the neurosciences. Through increased communication and exchanges, we will be able to move the global neuroscience agenda forward in exciting new ways, to the ultimate benefit of the health of people everywhere. ■